Distributed by:

JAMECO® ELECTRONICS

www.Jameco.com ✦ 1-800-831-4242

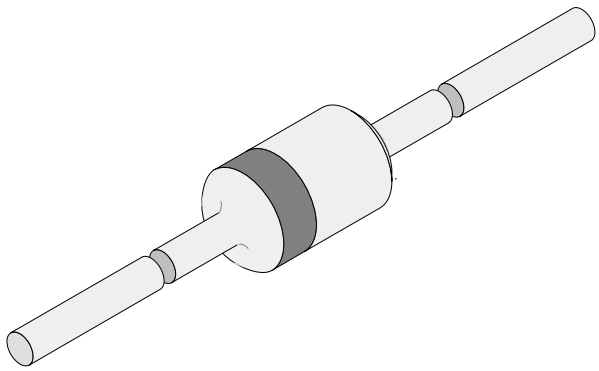
The content and copyrights of the attached material are the property of its owner.

Silicon Power Z–Diodes

Jameco Part Number 178765

Features

- Very sharp reverse characteristic
- Very high stability
- Low reverse current level
- V_Z–tolerance ± 5%



94 9369

Applications

Voltage stabilization

Order Instruction

Type	Ordering Code	Remarks
1N4728A	1N4728A–TAP	Ammopack
	1N4728A–TR	Tape and Reel

Absolute Maximum Ratings

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Value	Unit
Power dissipation	T_{amb} ≦ 50 °C		P_V	1	W
Z–current			I_Z	P_V/V_Z	mA
Junction temperature			T_j	200	°C
Storage temperature range			T_{stg}	–65...+200	°C

Maximum Thermal Resistance

T_j = 25°C

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	l=9.5 mm (3/8”), T_L=constant	R_{thJA}	100	K/W

Electrical Characteristics

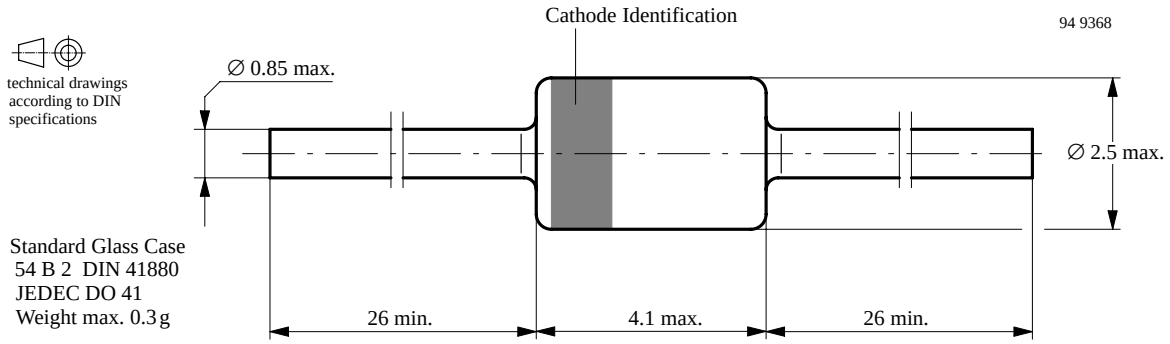
T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=200mA		V_F			1.2	V

Type	V_{Znom} [1]	I_{ZT} for r_{zjT}	I_{ZT} for r_{zjT}	r_{zjk} at I_{ZK}	r_{zjk} at I_{ZK}	I_R at V_R	I_R at V_R
1N4728A	3.3	76	< 10	< 400	1.0	< 100	1
1N4729A	3.6	69	< 10	< 400	1.0	< 100	1
1N4730A	3.9	64	< 9	< 400	1.0	< 50	1
1N4731A	4.3	58	< 9	< 400	1.0	< 10	1
1N4732A	4.7	53	< 8	< 500	1.0	< 10	1
1N4733A	5.1	49	< 7	< 550	1.0	< 10	1
1N4734A	5.6	45	< 5	< 600	1.0	< 10	2
1N4735A	6.2	41	< 2	< 700	1.0	< 10	3
1N4736A	6.8	37	< 3.5	< 700	1.0	< 10	4
1N4737A	7.5	34	< 4.0	< 700	0.5	< 10	5
1N4738A	8.2	31	< 4.5	< 700	0.5	< 10	6
1N4739A	9.1	28	< 5.0	< 700	0.5	< 10	7
1N4740A	10	25	< 7	< 700	0.25	< 10	7.6
1N4741A	11	23	< 8	< 700	0.25	< 5	8.4
1N4742A	12	21	< 9	< 700	0.25	< 5	9.1
1N4743A	13	19	< 10	< 100	0,25	< 5	9.9
1N4744A	15	17	< 14	< 700	0.25	< 5	11.4
1N4745A	16	15.5	< 16	< 700	0.25	< 5	12.2
1N4746A	18	14	< 20	< 750	0.25	< 5	13.7
1N4747A	20	12.5	< 22	< 750	0.25	< 5	15.2
1N4748A	22	11.5	< 23	< 750	0.25	< 5	16.7
1N4749A	24	10.5	< 25	< 750	0.25	< 5	18.2
1N4750A	27	9.5	< 35	< 750	0.25	< 5	20.6
1N4751A	30	8.5	< 40	< 1000	0.25	< 5	22.8
1N4752A	33	7.5	< 45	< 1000	0.25	< 5	25.1
1N4753A	36	7.0	< 50	< 1000	0.25	< 5	27.4
1N4754A	39	6.5	< 60	< 1000	0.25	< 5	29.7
1N4755A	43	6.0	< 70	< 1500	0.25	< 5	32.7
1N4756A	47	5.5	< 80	< 1500	0.25	< 5	35.8
1N4757A	51	5.0	< 95	< 1500	0.25	< 5	38.8
1N4758A	56	4.5	< 110	< 2000	0.25	< 5	42.6
1N4759A	62	4.0	< 125	< 2000	0.25	< 5	47.1
1N4760A	68	3.7	< 150	< 2000	0.25	< 5	51.7
1N4761A	75	3.3	< 175	< 2000	0.25	< 5	56.0

[1] Based on dc–measurement at thermal equilibrium while maintaining the lead temperature (T_L) at 30 °C + 1 °C, 9.5mm (3/8") from the diode body.

Dimensions in mm



Ozone Depleting Substances Policy Statement

It is the policy of **Vishay Semiconductor GmbH** to

1. Meet all present and future national and international statutory requirements.

2. Regularly and continuously improve the performance of our products, processes, distribution and operating systems
   with respect to their impact on the health and safety of our employees and the public, as well as their impact on the environment.

It is particular concern to control or eliminate releases of those substances into the atmosphere which are known as ozone depleting substances (ODSs).

The Montreal Protocol (1987) and its London Amendments (1990) intend to severely restrict the use of ODSs and forbid their use within the next ten years. Various national and international initiatives are pressing for an earlier ban on these substances.

Vishay Semiconductor GmbH has been able to use its policy of continuous improvements to eliminate the use of ODSs listed in the following documents.

1. Annex A, B and list of transitional substances of the Montreal Protocol and the London Amendments respectively

2. Class I and II ozone depleting substances in the Clean Air Act Amendments of 1990 by the Environmental Protection Agency (EPA) in the USA

3. Council Decision 88/540/EEC and 91/690/EEC Annex A, B and C (transitional substances) respectively.

Vishay Semiconductor GmbH can certify that our semiconductors are not manufactured with ozone depleting substances and do not contain such substances.

We reserve the right to make changes to improve technical design and may do so without further notice.
Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer. Should the buyer use Vishay-Semiconductors products for any unintended or unauthorized application, the buyer shall indemnify Vishay-Semiconductors against all claims, costs, damages, and expenses, arising out of, directly or indirectly, any claim of personal damage, injury or death associated with such unintended or unauthorized use.

Vishay Semiconductor GmbH, P.O.B. 3535, D-74025 Heilbronn, Germany
Telephone: 49 (0)7131 67 2831, Fax number: 49 (0)7131 67 2423